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5 BRS:

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- L1: (5460) underground and mining
- L2: (47) 1 and "loop antenna"
- L3: (21) 2 and modulator
- L4: (3) 3 and "faraday coupling"
- L5: (7) 1 and (SSB or "single sideband")
- L6: (3) 5 and "faraday coupling"
- L7: (1738) 455/40 455/41.1 455/203 455/560 455/557 455/550.1
- L8: (3) 7 and "single sideband".clm.
- L9: (0) 8 and "faraday coupling".clm.
- L10: (2) 8 and "comb filter".clm.
- L11: (5) 7 and "loop antenna".clm.
- L12: (2) 11 and modulator.clm.
- L13: (0) 12 and "faraday coupling".clm.

Failed

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- S2: (1) ("4656463").PN.
- S3: (0) S2 and "magnetic flux"

DBs ☐ US-PGPUB; USPAT; EPO ☒ Plurals

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12 and "faraday coupling".cm.

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- ☛ S2: (1) ("4656463").PN.
- ☛ S3: (0) S2 and "magnetic flux"
- ☛ S4: (1) S2 and capacitor
- ☛ S5: (0) S2 and flux
- ☛ S6: (1) S2 and magnetic
- ☛ S7: (1) S6 and amplifier
- ☛ S8: (1) S7 and modulator
- ☛ S9: (0) S8 and (reduc\$3 near3 impedance)
- ☛ S10: (1) S8 and impedance
- ☛ S11: (1) S10 and antenna
- ☛ S12: (1) S11 and filter

United States Patent
Melstals et al.

Patent No. 6,370,396 B1
(of Date of Patent: Apr. 9, 2002)

(24) **FACILITY-WIDE COMMUNICATION SYSTEM AND METHOD**

(75) **Inventors:** Ed M. Melstals, Jr. and Robert Robert S. Kilgus, all of Pittsburgh, Pa. (US)

(73) **Assignee:** Traneck, Inc., Pittsburgh, Pa. (US)

(*) **Notice:** Subject to any disclaimer, the owner of this patent is certified as having elected small entity status under 35 U.S.C. 154(b) by 6 days.

(21) **Appl. No.:** 09/73,737

(22) **Filed:** May 23, 2000

Related U.S. Application Data

(35) **Provisional application No. 60/131,746, filed on May 23, 1999**

(31) **Int. Cl.:** H04L 1/00

(32) **U.S. Cl.:** 438/268; 438/277; 438/248

(36) **Field of Invention:** 438/268; 438/277; 438/248

ABSTRACT

A method and system for communication within an emergency-services-based communication system (e.g., fire department, police, ambulance, etc.) is disclosed. The system includes a plurality of communication devices (e.g., radios, mobile phones, etc.) and a central communication system (e.g., a base station, a server, etc.). The system is configured to receive and transmit communication data (e.g., voice, text, video, etc.) between the communication devices and the central communication system. The system is also configured to receive and transmit communication data (e.g., voice, text, video, etc.) between the communication devices and a plurality of other communication devices (e.g., other fire departments, other police departments, other ambulance services, etc.). The system is also configured to receive and transmit communication data (e.g., voice, text, video, etc.) between the communication devices and a plurality of other communication systems (e.g., other fire departments, other police departments, other ambulance services, etc.).

FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5

FIG. 6

FIG. 7

FIG. 8

FIG. 9

FIG. 10

FIG. 11

FIG. 12

FIG. 13

FIG. 14

FIG. 15

FIG. 16

FIG. 17

FIG. 18

FIG. 19

FIG. 20

FIG. 21

FIG. 22

FIG. 23

FIG. 24

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1	<input type="checkbox"/>	<input type="checkbox"/>	US 20020098868 A1	20020725	34	Through-the-earth communication system	455/560	455/561		Meiksin, Zvi H. et al.
2	<input type="checkbox"/>	<input type="checkbox"/>	US 20020098867 A1	20020725	34	Powerline communication system	455/560	455/402		Meiksin, Zvi H. et al.
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6370396 B1	20020409	31	Facility-wide communication system and method	455/560	455/557; 455/561		Meiksin, Zvi H. et al.

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 - ☒ S10: (1) S8 and impedance
 - ☒ S11: (1) S10 and antenna
 - ☒ S12: (1) S11 and filter
 - ☒ S13: (0) S12 and SSP

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3 and "faraday coupling"

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